

ATTORNEY DOCKET  
063718.0281

PATENT APPLICATION

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: William A. Goldman et al.  
Filing Date: September 23, 2003  
Title: **METHOD AND SYSTEM FOR PREDICTING  
PERFORMANCE OF A DRILLING SYSTEM  
FOR A GIVEN FORMATION**

This application is a continuation of U.S. Patent Application  
Serial No. 10/177,829 filed June 21, 2002.

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

I hereby certify that this Information Disclosure  
Statement is being deposited with the United  
States Postal Service as Express Mail #EV  
341127018 US addressed to: Commissioner for  
Patents, P.O. Box 1450, Alexandria, VA  
22313-1450, on the date shown below.

  
Jay Howard

9-23-03  
Date

Dear Sir:

**INFORMATION DISCLOSURE STATEMENT**

Pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants respectfully request that the references listed on the attached PTO-1449 form, and previously cited in U.S. Patent Application Serial No. 10/177,829 filed June 21, 2002, be considered and cited in the examination of the above-identified application. Pursuant to 37 C.F.R. § 1.98(d), copies of the references are not being furnished. Furthermore, pursuant to 37 C.F.R. §§1.97(g) and (h), no representation is made that these references are material to the patentability of the present application.

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Applicants believe no fee is due at this time, however, the Commissioner is hereby authorized to charge any fees to Deposit Account No. 50-2148 of BAKER BOTTS L.L.P. in order to effectuate this filing.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicants' attorney at 512.322.2599.

Respectfully submitted,

BAKER BOTTS L.L.P.

Attorneys for Applicants

  
Thomas R. Felger  
Registration No. 28,842

Date: 23 SEPT 2003

CORRESPONDENCE ADDRESS:

Customer No. **31625**  
512.322.2599

<b>PTO-1449</b>  <b>Information Disclosure Citation in an Application</b>				Application No.		Applicant(s)	
				Unassigned		William A. Goldman et al.	
				Docket Number		Group Art Unit	Filing Date
				063718.0281		Unassigned      September 23, 2003	
<b>U.S. PATENT DOCUMENTS</b>							
		<b>DOCUMENT NO.</b>	<b>DATE</b>	<b>NAME</b>	<b>CLASS</b>	<b>SUBCLASS</b>	<b>FILING DATE</b>
	A.	3593807	7/1971	Klima	173	6	
	B.	3742966	8/1973	Foy et al.	175	40	
	C.	3971449	7/1976	Nylund et al.	173	11	
	D.	4064749	12/1977	Pittman et al.	73	152	
	E.	4195699	4/1980	Rogers et al.	173	177	
	F.	4354233	10/1982	Zhukovsky et al.	173	6	
	G.	4407017	9/1983	Zhilikob et al.	173	6	
	H.	4627276	12/1986	Burgess et al.	175	39	
	I.	4685329	8/1987	Burgess	175	39	
<b>FOREIGN PATENT DOCUMENTS</b>							
		<b>DOCUMENT NO.</b>	<b>DATE</b>	<b>COUNTRY</b>	<b>CLASS</b>	<b>SUBCLASS</b>	<b>TRANSLATION</b>
							YES      NO
	J.	0466255	1/1992	EP			
	K.	470593	8/1975	RU			
	L.	726295	4/1980	RU			
	M.	1716112	2/1992	RU			
<b>NON-PATENT DOCUMENTS</b>							
		<b>DOCUMENT (Including Author, Title, Source, and Pertinent Pages)</b>					<b>DATE</b>
	N.	E.M. Galle and H.B. Woods, "Best Constant Weight And Rotary Speed For Rotary Rock Bits", pp. 48-73, API Drilling and Production Practice,					1963
	O.	R. Teale, "The Concept Of Specific Energy In Rock Drilling", p. 57-63, International Journal of Rock Mechanics, Mining Sciences, vol. 2, Great Britain					1965
	P.	Howell Word and Marvin Fisbeck, "Drilling Parameters And The Journal Bearing Carbide Bit", pp. 92-93, Drilling--DCW, Jan. 1980, first published Oct. 1979 in Tulsa, Oklahoma					Published Oct. 1979
	Q.	R.C. Pessier, M.J. Fear, "Quantifying Common Drilling Problems With Mechanical Specific Energy and A Bit-Specific Coefficient Of Sliding Friction", pp. 373-388, SPE Paper 24584, Washington, D.C					Published Oct. 1982
	R.	Michael A. Simpson, Sr., "Hand-Held Calculator Program Helps Optimize Drilling", pp. 97-101, World Oil					Apr. 1984
	S.	Kenneth L. Mason, "3-Cone Bit Selection With Sonic Logs", pp. 135-142, SPE Drilling Engineering, Jun. 1987, first published Sep. 1984 in Houston, Texas					Published Sep. 1984
	T.	Allen D. Gault, "Measurement of Drilling Properties", pp. 143-148, SPE Drilling Engineer, Jun. 1987, published New Orleans, Louisiana, Mar. 1985					Mar. 1985
<b>EXAMINER</b>					<b>DATE CONSIDERED</b>		
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.							

PTO-1449  <b>Information Disclosure Citation in an Application</b>		Application No. Unassigned		Applicant(s) William A. Goldman et al.	
		Docket Number 063718.0281		Group Art Unit Unassigned	Filing Date September 23, 2003

U.S. PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	A.	4694686	9/1987	Fildes et al.	324	71	
	B.	4793421	12/1988	Jasinski	173	11	
	C.	4845628	7/1989	Gray et al.	702	9	
	D.	4875530	10/1989	Frink et al.	175	27	
	E.	4914591	4/1990	Warren et al.	175	40	
	F.	4926686	5/1990	Fay	175	39	
	G.	4981037	1/1991	Holbrook et al.	166	250	
	H.	5010789	4/1991	Brett et al.	700	159	
	I.	5012674	5/1991	Millheim et al.	324	201	

FOREIGN PATENT DOCUMENTS								
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	J.							
	K.							
	L.							

NON-PATENT DOCUMENTS		
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
M.	T.M. Burgess, W.C. Lesso, "Measuring The Wear Of Milled Tooth Bits Using MWD Torque And Weight-On-Bit", SPE/IADC 13475, pp. 453-458 for pages illustration, published Mar. 1985, New Orleans, Louisiana	Published Mar. 1985
N.	Philip Holbrook, Michael Hauck, "Petrophysical--Mechanical Math Model Real-Time Wellsite Poor Pressure/Fracture Gradient Prediction", SPE Pub. No. 16666, published Sep. 1987 in Dallas, Texas	Published Sep. 1987
O.	E.C. Onyia, "Relationships between Formation Strength, Drilling Strength, and Electric Log Properties", pp. 605-618, SPE Drilling Engineering,	Oct., 1988
P.	David A. Glowka, "Use of Single-Cutter Data in the Analysis of PDC Bit Designs: Part I--Development of a PDC Cutting Force Model", pp. 797-849, JPT,	Aug. 1989
Q.	David A. Glowka, "Use of Single-Cutter Data in the Analysis of PDC Bit Designs: Part II--Development of PDC WEAR Computer Code", pp. 850-859, JPT,	Aug. 1989
R.	E. Detournay, P. Defourny, "A Phenomenological Model for the Drilling Action of Drag Bits", pp. 13-23, International Journal of Rock Mechanics, Mineral Sciences and Geomechanical Abstracts, vol. 29, No. 1, printed in Great Britain.	1992

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	A.	5216917	6/1993	Detournay	175	39	
	B.	5282384	2/1994	Holbrook	702	12	
	C.	5305836	4/1994	Holbrook et al.	175	26	
	D.	5415030	5/1995	Jogi et al.	175	39	
	E.	5442950	8/1995	Unalmiser et al.	73	152	
	F.	5449047	9/1995	Schivley, Jr.	173	11	
	G.	5458207	10/1995	Mattero	173	6	
	H.	5704436	1/1998	Smith et al.	173	6	
	I.	5767399	6/1998	Smith et al.	702	10	
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		<b>DOCUMENT (Including Author, Title, Source, and Pertinent Pages)</b>					<b>DATE</b>
	M.	Joe Kelly, Jr., "Use break-Even Analysis to Optimize Bit Runs", pp. 75-79, World Oil					Nov. 1992
	N.	Geir Hareland and L.L. Hoberock, "Use of Drilling Parameters to Predict In-Situ Stress Bounds", pp.457-471, SPE/IADC 25727					Feb. 1993
	O.	J.P.R. Sparr and L.W. Ledgerwood, harvey Goodman, R.L. Graff and T.J. Moo, "Formation Compressive Strength Estimates for Predicting Drillability and PDC Bit Selection", pp. 569-578, SPE/IADC 29397, published Feb. 1995, Amsterdam, Netherlands					Published Feb. 1995
	P.	R.V. Barragan, O.L.A. Santos and E.E. Maidla, "Optimization of Multiple Bit Runs", pp. 579-589, SPE/IADC 37644					Mar. 4, 1977
	Q.	R.K. Bratli, G. Hareland, F. Stene, G.W. Dunsæd and G. Gjelstad, "Drilling Optimization Software Verified in the North Sea", 7 pages, SPE 39007					Aug. 1997
	R.	G. Gjelstad, G. Hareland, K.N. Nikolaisen and R.K. Bratli, "The Method of Reducing Drilling Costs More Than 50 Percent", 7 pages, SPE 47342					Jul. 1998
	S.	M.B. Ziaja and J.C. Roegiers, "Lithology Diagnosis Based on the Measurements of Drilling Forces and Moments at the Bit", IADC/SPE 47799, pp. 185-194					Sep. 1998
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	A.	5965810	10/1999	Holbrook	166	254	
	B.	6021859	2/2000	Tibbitts et al.	175	431	
	C.	6109368	8/2000	Goldman et al.	175	39	
	D.	5794720	8/18/98	Smith et al.			
	E.	6131673	10/17/00	Goldman et al.			
	F.	6408953	6/25/02	Goldman et al.			
	G.						
	H.						
	I.						
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	M.	H. Xu, T. Hatakeyama, T. Yonezawa and A. Suzuki, "Evaluation of Bit Performance Using an Advanced Drilling-Test System", IADC/SPE 47809, pp. 247-252					Sep. 1998
	N.	H.I. Bilgesu, U. Altmis, S. Ameri, S. Mohaghegh and K. Aminian, "A New Approach to Predict Life Based on Tooth or Bearing Failures", pp. 253-257, SPE 51082					Nov. 1998
	O.	E.T. Koskie, Jr., P. Slagel and W. Lesso, Jr., "Monitoring MWD Torque Improved PDC Bit Penetration Rates", pp. 61-67, World Oil					1998
	P.						
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